

AN 1994-329056 JAPIO
TI BUSHING FOR CRAWLER AND MANUFACTURE THEREOF
IN ANDO HARUHIKO; OKAWA KAZUhide; TAGAWA TOMIHIRO
PA KOMATSU LTD
PI JP 06329056 A 19941129 Heisei
AI JP 1993-142539 (JP05142539 Heisei) 19930524
PRAI JP 1993-142539 19930524
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1994
AB PURPOSE: To improve toughness and simplify an annealing process by forming hardened layers toward the thick wall center part from the outer and inner peripheral surface of a bushing by high frequency quenching, and making the hardness before the high frequency quenching remain at the thick wall center part.
CONSTITUTION: High frequency quenching is applied toward the thick wall center part 1c from the outer peripheral surface 1a and inner peripheral surface 1b of a bushing 1 so as to form hardened layers, and at the same time, a base material part with the hardness of rolled material or the like before the high frequency quenching remains at the thick wall center part 1c between the hardened layers of the inner and outer peripheral surface 1a, 1b. Hardness distribution between the inner and outer peripheral surface 1a, 1b between the cross section A-A is high at the part of outer peripheral hardened thickness Lo and inner peripheral hardened thickness Li and low at the base material part 1m of the thick wall center part 1c so as to form approximately U-shape. Quench distortion is thereby reduced, and the process of annealing, finish-machining, and the like after quenching can be omitted while heightening fatigue strength.
COPYRIGHT: (C)1994,JPO